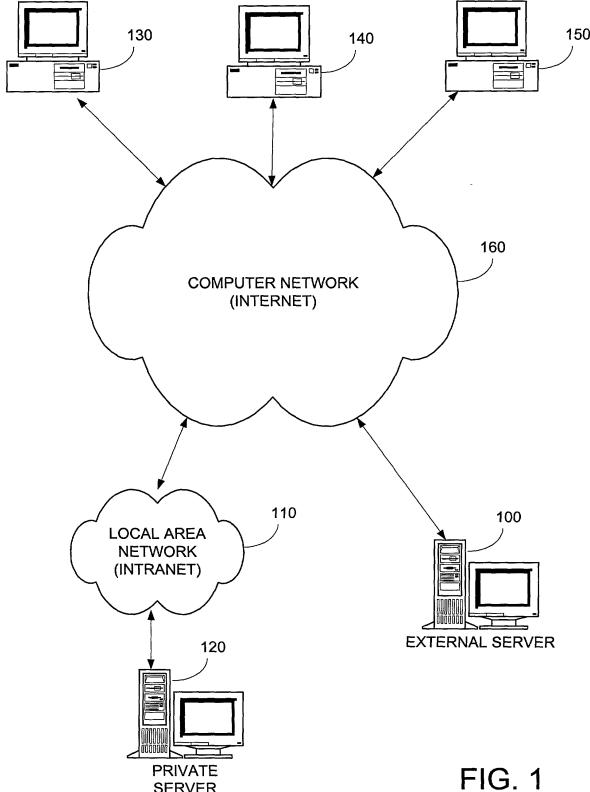
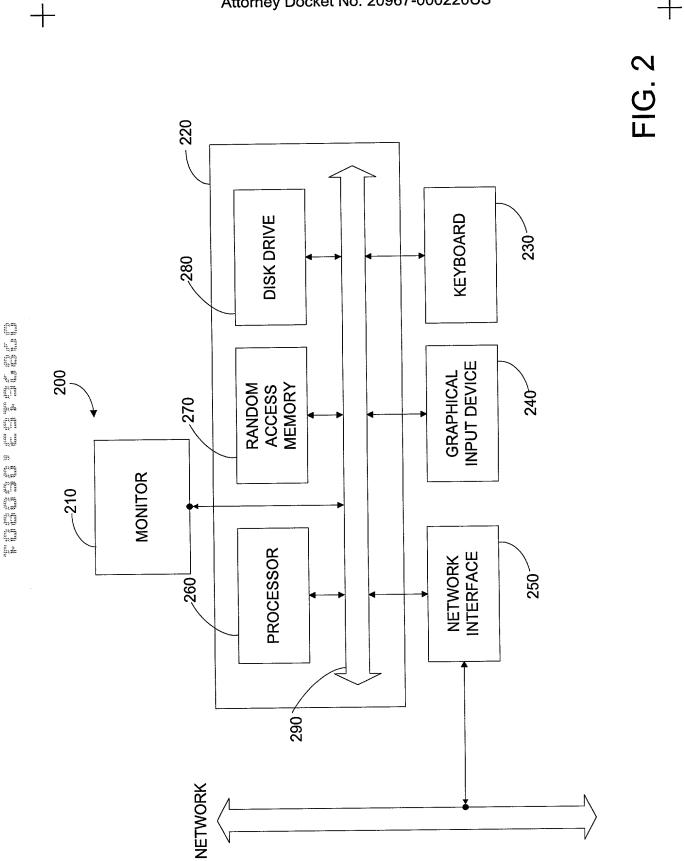
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SERVER FIG.







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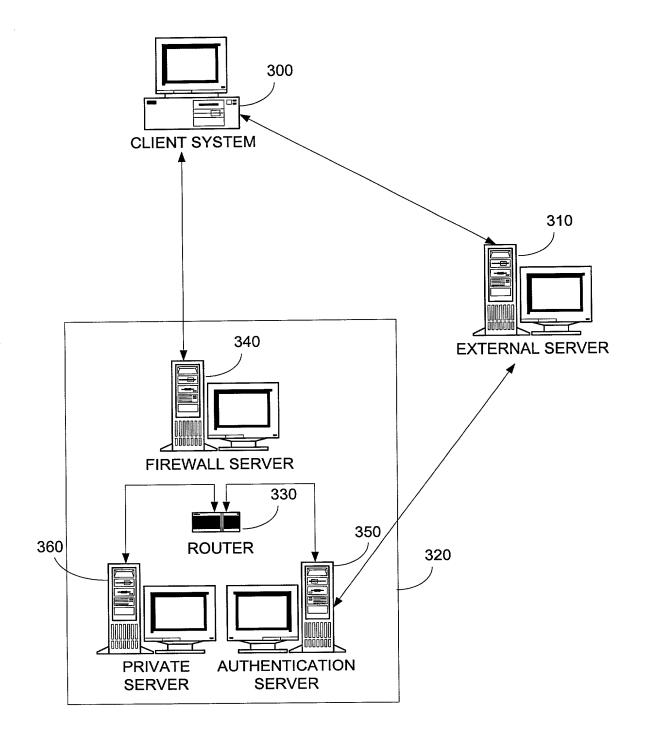


FIG. 3

Robert Jerdonek Apparatus for Pre-Authentication of Users Using One-Time Passwords Attorney Docket No: 20967-000220US 400 END USER ASSOCIATED WITH PRIVATE KEY / **PUBLIC KEY PAIR** 410 END USER ISSUED DIGITAL CERTIFICATE 420 PRIVATE KEY AND DIGITAL CERTIFICATE STORED IN KEY WALLET 430 **CLIENT-SIDE SOFTWARE INSTALLED** 440 USER INVOKES CLIENT-SIDE SOFTWARE TO **INITIATE NETWORK ACCESS** 450 USER ENTERS KEY WALLET AUTHENTICATION DATA (E.G. USER NAME, PIN) 460 KEY WALLET Α AUTHENTICATES? NO YES 470 USER PRIVATE KEY AND DIGITAL CERTIFICATE RETRIEVED FROM KEY WALLET

В

FIG. 4A

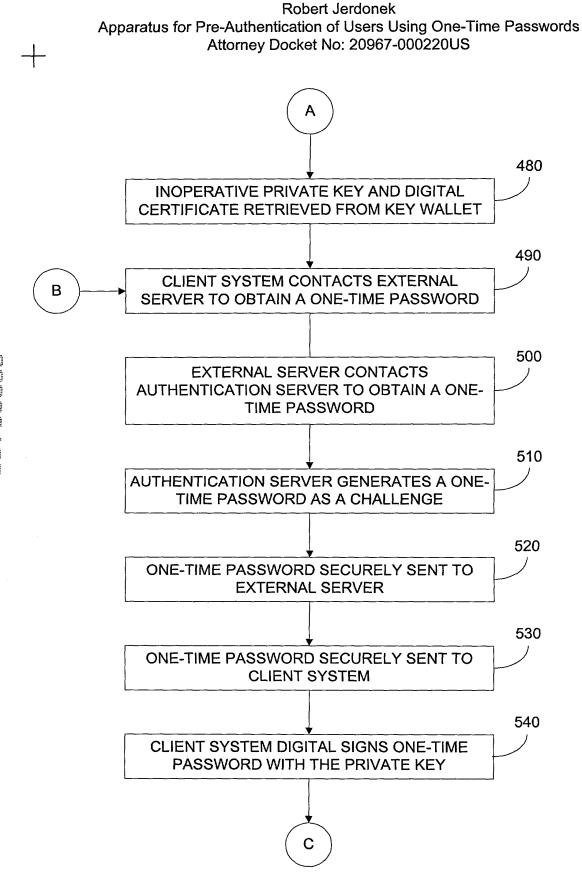


FIG. 4B

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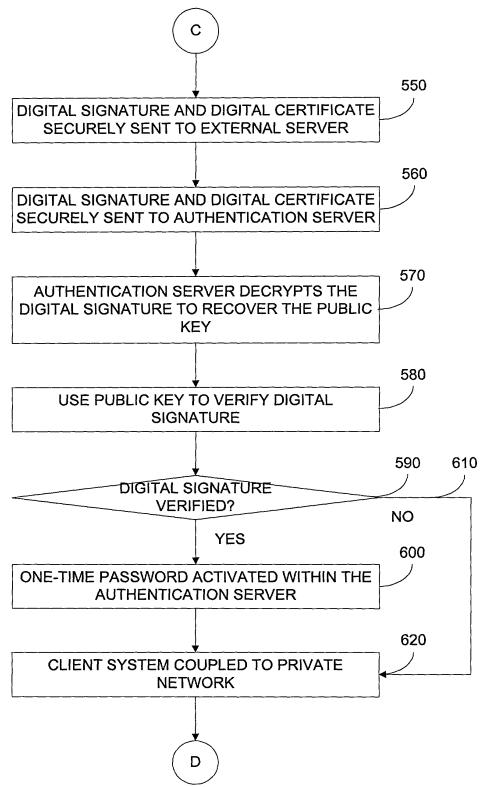


FIG. 4C

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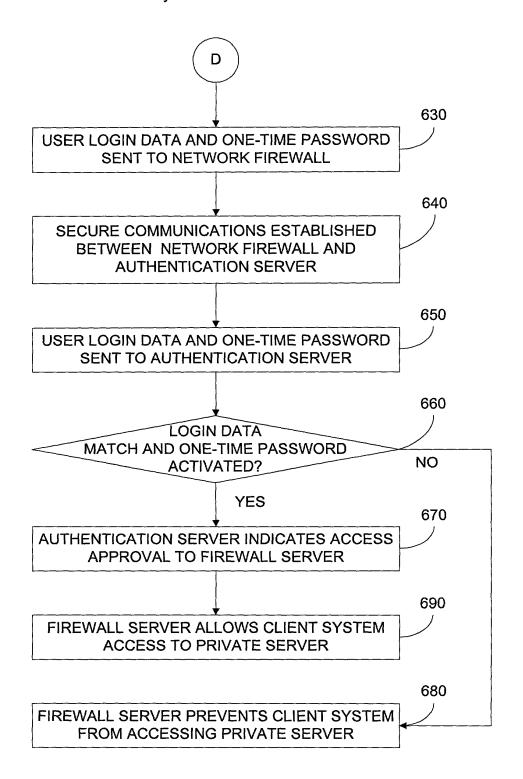


FIG. 4D

